

<110> Heston, Warren D.W.
 O'Keefe, Denise S.
 <120> DNA Encoding the Prostate-Specific Membrane
 Antigen-Like Gene and Uses Thereof
 <130> D6230
 <141> 2001-10-09
 <150> PCT/US00/09417
 <151> 2000-04-09
 <160> 38
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 <212> DNA
 <213> *Homo sapiens*
 <223> cDNA sequence of PSMA-like gene

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<213>    Homo sapiens

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<220>
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                    35                      40                      45
Arg Ile Tyr Asn Val Ile Gly Thr Leu Arg Gly Ala Val Glu Pro
                    50                      55                      60
Asp Arg Tyr Val Ile Leu Gly Gly His Arg Asp Ser Trp Val Phe
                    65                      70                      75
Gly Gly Ile Asp Pro Gln Ser Gly Ala Ala Val Val His Glu Thr
                    80                      85                      90
Val Arg Ser Phe Gly Thr Leu Lys Lys Glu Gly Trp Arg Pro Arg
                    95                     100                     105
Arg Thr Ile Leu Phe Ala Ser Trp Asp Ala Glu Glu Phe Gly Leu
                    110                     115                     120
Leu Gly Ser Thr Glu Trp Ala Glu Asp Asn Ser Arg Leu Leu Gln
                    125                     130                     135
Glu Arg Gly Val Ala Tyr Ile Asn Ala Asp Ser Ser Ile Glu Gly
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09973382-100904
T0500T-20002660

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Val Tyr Asn Leu Thr Lys Glu Leu Lys Ser Pro Asp Glu Gly Phe	170	175	180
Glu Gly Lys Ser Leu Tyr Glu Ser Trp Thr Lys Lys Ser Pro Ser	185	190	195
Pro Glu Phe Ser Gly Met Pro Arg Ile Ser Lys Leu Gly Ser Gly	200	205	210
Asn Asp Phe Glu Val Phe Phe Gln Arg Leu Gly Ile Ala Ser Gly	215	220	225
Arg Ala Arg Tyr Thr Lys Asn Trp Glu Thr Asn Lys Phe Ser Gly	230	235	240
Tyr Pro Leu Tyr His Ser Val Tyr Glu Thr Tyr Glu Leu Val Glu	245	250	255
Lys Phe Tyr Asp Pro Met Phe Lys Tyr His Leu Thr Val Ala Gln	260	265	270
Val Arg Gly Gly Met Val Phe Glu Leu Ala Asn Ser Ile Val Leu	275	280	285
Pro Phe Asp Cys Arg Asp Tyr Ala Val Val Leu Arg Lys Tyr Ala	290	295	300
Asp Lys Ile Tyr Asn Ile Ser Met Lys His Pro Gln Glu Met Lys	305	310	315
Thr Tyr Ser Leu Ser Phe Asp Ser Leu Phe Ser Ala Val Lys Asn	320	325	330
Phe Thr Glu Ile Ala Ser Lys Phe Ser Glu Arg Leu Gln Asp Phe	335	340	345
Asp Lys Ser Asn Pro Ile Leu Leu Arg Met Met Asn Asp Gln Leu	350	355	360
Met Phe Leu Glu Arg Ala Phe Ile Asp Pro Leu Gly Leu Pro Asp	365	370	375
Arg Pro Phe Tyr Arg His Val Ile Tyr Ala Pro Ser Ser His Asn	380	385	390
Lys Tyr Ala Gly Glu Ser Phe Pro Gly Ile Tyr Asp Ala Leu Phe	395	400	405

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<210> 3
 <211> 2653
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 <213> *Homo sapiens*

<220>
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 <212> PRT
 <213> *Homo sapiens*

<220>
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 35 40 45
 Ser Asn Glu Ala Thr Asn Ile Thr Pro Lys His Asn Met Lys Ala
 50 55 60
 Phe Leu Asp Glu Leu Lys Ala Glu Asn Ile Lys Lys Phe Leu Tyr
 65 70 75

09073382.100904

Asn	Phe	Thr	Gln	Ile	Pro	His	Leu	Ala	Gly	Thr	Glu	Gln	Asn	Phe	80	85	90
Gln	Leu	Ala	Lys	Gln	Ile	Gln	Ser	Gln	Trp	Lys	Glu	Phe	Gly	Leu	95	100	105
Asp	Ser	Val	Glu	Leu	Ala	His	Tyr	Asp	Val	Leu	Leu	Ser	Tyr	Pro	110	115	120
Asn	Lys	Thr	His	Pro	Asn	Tyr	Ile	Ser	Ile	Ile	Asn	Glu	Asp	Gly	125	130	135
Asn	Glu	Ile	Phe	Asn	Thr	Ser	Leu	Phe	Glu	Pro	Pro	Pro	Pro	Gly	140	145	150
Tyr	Glu	Asn	Val	Ser	Asp	Ile	Val	Pro	Pro	Phe	Ser	Ala	Phe	Ser	155	160	165
Pro	Gln	Gly	Met	Pro	Glu	Gly	Asp	Leu	Val	Tyr	Val	Asn	Tyr	Ala	170	175	180
Arg	Thr	Glu	Asp	Phe	Phe	Lys	Leu	Glu	Arg	Asp	Met	Lys	Ile	Asn	185	190	195
Cys	Ser	Gly	Lys	Ile	Val	Ile	Ala	Arg	Tyr	Gly	Lys	Val	Phe	Arg	200	205	210
Gly	Asn	Lys	Val	Lys	Asn	Ala	Gln	Leu	Ala	Gly	Ala	Lys	Gly	Val	215	220	225
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Ser	Tyr	Pro	Asp	Gly	Trp	Asn	Leu	Pro	Gly	Gly	Gly	Val	Gln	Arg	245	250	255
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Ala	Val	Gly	Leu	Pro	Ser	Ile	Pro	Val	His	Pro	Ile	Gly	Tyr	Tyr	290	295	300
Asp	Ala	Gln	Lys	Leu	Leu	Glu	Lys	Met	Gly	Gly	Ser	Ala	Pro	Pro	305	310	315
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09973382-100501

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Gly His Arg Asp Ser Trp Val Phe Gly Gly Ile Asp Pro Gln Ser	380	385	390
Gly Ala Ala Val Val His Glu Ile Val Arg Ser Phe Gly Thr Leu	395	400	405
Lys Lys Glu Gly Trp Arg Pro Arg Arg Thr Ile Leu Phe Ala Ser	410	415	420
Trp Asp Ala Glu Glu Phe Gly Leu Leu Gly Ser Thr Glu Trp Ala	425	430	435
Glu Glu Asn Ser Arg Leu Leu Gln Glu Arg Gly Val Ala Tyr Ile	440	445	450
Asn Ala Asp Ser Ser Ile Glu Gly Asn Tyr Thr Leu Arg Val Asp	455	460	465
Cys Thr Pro Leu Met Tyr Ser Leu Val His Asn Leu Thr Lys Glu	470	475	480
Leu Lys Ser Pro Asp Glu Gly Phe Glu Gly Lys Ser Leu Tyr Glu	485	490	495
Ser Trp Thr Lys Lys Ser Pro Ser Pro Glu Phe Ser Gly Met Pro	500	505	510
Arg Ile Ser Lys Leu Gly Ser Gly Asn Asp Phe Glu Val Phe Phe	515	520	525
Gln Arg Leu Gly Ile Ala Ser Gly Arg Ala Arg Tyr Thr Lys Asn	530	535	540
Trp Glu Thr Asn Lys Phe Ser Gly Tyr Pro Leu Tyr His Ser Val	545	550	555
Tyr Glu Thr Tyr Glu Leu Val Glu Lys Phe Tyr Asp Pro Met Phe	560	565	570
Lys Tyr His Leu Thr Val Ala Gln Val Arg Gly Gly Met Val Phe	575	580	585

0997332-100901

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Ala	Val	Val	Leu	Arg	Lys	Tyr	Ala	Asp	Lys	Ile	Tyr	Ser	Ile	Ser	
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Met	Lys	His	Pro	Gln	Glu	Met	Lys	Thr	Tyr	Ser	Val	Ser	Phe	Asp	
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Ser	Leu	Phe	Ser	Ala	Val	Lys	Asn	Phe	Thr	Glu	Ile	Ala	Ser	Lys	
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Phe	Ser	Glu	Arg	Leu	Gln	Asp	Phe	Asp	Lys	Ser	Asn	Pro	Ile	Val	
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Leu	Arg	Met	Met	Asn	Asp	Gln	Leu	Met	Phe	Leu	Glu	Arg	Ala	Phe	
				665					670					675	
Ile	Asp	Pro	Leu	Gly	Leu	Pro	Asp	Arg	Pro	Phe	Tyr	Arg	His	Val	
				680					685					690	
Ile	Tyr	Ala	Pro	Ser	Ser	His	Asn	Lys	Tyr	Ala	Gly	Glu	Ser	Phe	
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Pro	Gly	Ile	Tyr	Asp	Ala	Leu	Phe	Asp	Ile	Glu	Ser	Lys	Val	Asp	
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Pro	Ser	Lys	Ala	Trp	Gly	Glu	Val	Lys	Arg	Gln	Ile	Tyr	Val	Ala	
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<220>
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 <223> sense primer designed for only amplifying
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<210> 6
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09973382-100901

<212> DNA
<213> Artificial sequence

<220>
<221> primer_bind
<223> antisense primer designed for only
amplifying the first intron of the PSMA-
like gene on chromosome 11q

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<210> 7
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<212> DNA
<213> Artificial sequence

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<223> sense oligonucleotide primer based upon
intronic sequences of the PSMA genomic
clone used to amplify the corresponding
regions of the PSMA-like gene (exon 2)

<400> 7
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<210> 8
<211> 20
<212> DNA
<213> Artificial sequence

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clone used to amplify the corresponding
regions of the PSMA-like gene (exon 2)

<400> 8
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<210> 9
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<212> DNA
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<220>
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<223> sense oligonucleotide primer based upon
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 clone used to amplify the corresponding
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<210> 10
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 <212> DNA
 <213> Artificial sequence

<220>
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 clone used to amplify the corresponding
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<210> 11
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<220>
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 clone used to amplify the corresponding
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<210> 13
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clone used to amplify the corresponding
regions of the PSMA-like gene (exons 5-6)

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regions of the PSMA-like gene (exons 5-6)

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<213> Artificial sequence

<220>
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<223> sense oligonucleotide primer based upon
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clone used to amplify the corresponding
regions of the PSMA-like gene (exon 7)

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<210> 16
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 <213> Artificial sequence

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 <220>
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 <220>
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 <212> DNA
 <213> Artificial sequence

<220>
 <221> primer_bind
 <223> antisense oligonucleotide primer based upon
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<210> 21
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 <213> Artificial sequence

<220>
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 <223> sense oligonucleotide primer based upon
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 clone used to amplify the corresponding
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<210> 22
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 <212> DNA
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<220>
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clone used to amplify the corresponding
regions of the PSMA-like gene (exon 11)

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<210> 23
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clone used to amplify the corresponding
regions of the PSMA-like gene (exon 12)

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<210> 24
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<212> DNA
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<220>
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intronic sequences of the PSMA genomic
clone used to amplify the corresponding
regions of the PSMA-like gene (exon 12)

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<212> DNA
<213> Artificial sequence

<220>
<221> primer_bind
<223> sense oligonucleotide primer based upon
intronic sequences of the PSMA genomic
clone used to amplify the corresponding
regions of the PSMA-like gene (exon 13)

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22

<210> 26
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<212> DNA
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<220>
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<223> antisense oligonucleotide primer based upon
intronic sequences of the PSMA genomic
clone used to amplify the corresponding
regions of the PSMA-like gene (exon 13)

<400> 26
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22

<210> 27
<211> 22
<212> DNA
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<220>
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clone used to amplify the corresponding
regions of the PSMA-like gene (exon 14)

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22

<210> 28
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regions of the PSMA-like gene (exon 14)

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22

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<210> 29
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 <210> 30
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 <212> DNA
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 <210> 31
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 <210> 32
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regions of the PSMA-like gene (exons 16-17)

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<210> 33
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regions of the PSMA-like gene (exon 18)

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<210> 34
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<212> DNA
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regions of the PSMA-like gene (exon 18)

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<210> 35
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<212> DNA
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09973382.100901